IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A method of transferring video through an interface comprising:

compressing [[a]] first portions of [[a]] blocks of coefficients~~, the block of coefficients representing a block of pixels~~;

sending the compressed first portion of coefficients to the interface;

repeating the compressing the first portions and the sending the compressed first portions for frames of a sequence of frames, wherein each frame of the sequence comprises a plurality of blocks of pixels and each block of pixels is represented by a block of the coefficients,

compressing [[a]] second portions of the blocks of coefficients; ~~and~~

sending the compressed second portion of coefficients to the interface; and

repeating the compressing the second portions and the sending the compressed second portions for the frames of the sequence,

wherein the compressing and the sending for the second portions are performed after the compressing and sending are performed for the first portions for the frames in the sequence.

2. (Currently Amended) The method as claimed in claim 1 wherein a reception device receives the compressed first portions for the frames of the sequence prior to receiving the compressed second portions for the frames of the sequence, and

wherein the reception device ~~and~~ decompresses the first and second portions of coefficients, synchronizes with a reference frame of the sequence of frames, and combines the decompressed first portions of coefficients with the decompressed second portions of coefficients of corresponding frames based on synchronization with the reference frame to generate a combined coefficient matrix corresponding with each of the blocks of pixels for each frame in the sequence.

3. (Currently Amended) The method as claimed in claim 1 wherein each block of coefficients comprises a coefficient matrix generated from transforming a corresponding block

of pixels, wherein the first portions and the second portions of each matrix are mutually exclusive.

~~wherein the matrix of coefficients has a low frequency portion and a high frequency portion, wherein compressing the first portion of the coefficients comprises compressing the low frequency portion of the coefficients, and wherein sending the compressed first portion of coefficients sends the compressed low frequency portion of coefficients to the interface,~~

~~and wherein compressing the second portion of the coefficients comprises compressing the high frequency portion of the coefficients, and wherein sending the compressed second portion of coefficients comprises sending the compressed high frequency portion of coefficients.~~

4. (Cancelled)

5. (Currently Amended) A method of transferring video through an interface comprising:

compressing a first portion of a block of coefficients, the block of coefficients representing a block of pixels;

sending the compressed first portion of coefficients to the interface;

compressing a second portion of the block of coefficients; and

sending the compressed second portion of coefficients to the interface,

wherein a video is comprised of a sequence of frames and wherein each frame of the sequence is comprised of a plurality of blocks of pixels,

wherein compressing and sending the first portion of coefficients are performed for each block of pixels of each frame in the sequence prior to performing compressing and sending the second portion of coefficients, and

~~The method as claimed in claim 4 further comprising:~~

wherein the method further comprises:

repeating compressing and sending the first portion of the coefficients for a set of initial frames of the sequence; and

performing compressing and sending the second portion of coefficients for each block of pixels for frames subsequent to receiving a switch mode signal,

wherein the reception device decompresses and decodes the first portion of coefficients

for each frame to match one of the initial frames with a previously sent frame,

the method further comprising:

receiving the switch mode signal from the reception device; and

switching from compressing and sending the first portion of coefficients to compressing and sending the second portion of coefficients.

6. (Cancelled)

7. (Currently Amended) The method as claimed in claim [[1]] 3 wherein the second portions of coefficients is mutually exclusive of coefficients of the first portions of a corresponding coefficient matrix, and

wherein both the first and second portions of coefficients of the coefficient matrices represent frequency components of corresponding blocks of pixels.

8. (Currently Amended) The method as claimed in claim 1 wherein the sequence of frames is a sequence of digital frames and wherein the video is comprised of [[a]] the sequence of digital frames ~~and wherein each frame of the sequence is comprised of a plurality of blocks of pixels,~~ and wherein the method comprises:

performing a transformation ~~a transform is performed~~ on each block of pixels of the frames of the sequence resulting in a ~~the~~ matrix of coefficients corresponding with each of the blocks of pixels; ~~, the method further comprising:~~

receiving a sequence of analog video frames; and

converting the sequence analog video frames to the sequence of the digital ~~video~~ frames, wherein each pixel is represented by at least one byte.

9. (Original) The method as claimed in claim 1 wherein the interface is low data rate interface providing a communication link with a reception device having a data rate between 1 and 20 Mbps.

10. (Original) The method as claimed in claim 9 wherein the interface is a universal serial bus (USB) interface.

11. (Currently Amended) The method as claimed in claim 1 further comprising performing a transformation on each of the blocks of pixels of the frames of the sequence to generate a ~~resulting in the~~ matrix of coefficients corresponding with each of the blocks of pixels.

12. (Currently Amended) The method as claimed in claim 11 wherein performing the transformation comprises ~~transforming the block of pixels comprises~~ performing a discrete cosine transform (DCT) on each of the blocks of pixels resulting in a matrix of DCT coefficients ~~corresponding with the~~ for each block of pixels.

13. (Currently Amended) A method of generating a high quality video bit stream from coefficients received over an interface, wherein each frame of a sequence of frames comprises blocks of pixels, and each block of pixels is represented by a coefficient matrix, the method comprising:

decompressing a first portion of coefficients of the coefficient matrices for each frame of the sequence;

decompressing a second portion of ~~the~~ coefficients of the coefficient matrices, the second portions being received for each frame of the sequence subsequent to receipt of ~~the~~ first portions; and

combining the first and second portions of corresponding coefficient matrices of each frame ~~coefficients~~ to generate ~~a~~ combined coefficient ~~matrix~~ matrices corresponding with [[a]] the blocks of pixels.

14. (Currently Amended) The method as claimed in claim 13 further comprising identifying a reference frame for use in combining the first and second portions ~~wherein the block of pixels is represented by a matrix of coefficients comprised of the first and second portions, the first portion being compressed prior to being sent over a low data rate interface~~.

15. (Currently Amended) A method of generating a high quality video bit stream from coefficients received over an interface, the method comprising:

decompressing a first portion of coefficients;

decompressing a second portion of the coefficients received subsequent to the first portion; and

combining the first and second portions of coefficients to generate a combined coefficient matrix corresponding with a block of pixels,

~~The method as claimed in claim 13~~ wherein a video is comprised of a sequence of frames and wherein each frame of the sequence is comprised of a plurality of blocks of pixels, each block of pixels being represented by a matrix of coefficients comprised of the first and second portions, and

wherein the method further ~~comprising:~~ comprises:

receiving for a second time the first portion of coefficients for each block of pixels of initial frames of the sequence;

matching one of the initial frames with a previously received frame to identify a reference frame; and

signaling a video capture device to send the second portion of coefficients for each block of pixels of frames subsequent to the reference frame.

16. (Original) The method as claimed in claim 15 wherein the first portion of coefficients is comprised of low frequency coefficients of the matrix and the second portion is comprised of high frequency coefficients of the matrix, and wherein signaling the video capture device instructs the video capture device to switch from compressing and sending the low frequency coefficients of the matrix to compressing and sending the high frequency coefficients of the matrix.

17. (Currently Amended) The method as claimed in claim 13 wherein a video is comprised of ~~a~~ the sequence of frames ~~and wherein each frame of the sequence is comprised of a plurality of blocks of pixels, each block of pixels being represented by a matrix of coefficients comprised of the first and second portions~~, the method further ~~comprising:~~ comprises:

receiving the first portion of the coefficients for each block of pixels for the frames of the sequence over the interface;

storing the first portion of coefficients for each block of pixels for the frames of the sequence; and

upon completion of receiving the first portion of coefficients, receiving the second portion of the coefficients for each block of pixels for the frames of the sequence.

18. (Currently Amended) The method as claimed in claim [[13]] 14 wherein a video is comprised of a the sequence of frames and wherein ~~each frame of the sequence is comprised of a plurality of blocks of pixels, each block of pixels being represented by a matrix of coefficients,~~ the method further ~~comprising~~ comprises:

providing a indication to resend the first portions of coefficients for initial frames of the sequence upon completion of receiving the first portions of coefficients for each block of pixels of each frame of the sequence; and

identifying a reference from the initial frames.

19. (Original) The method as claimed in claim 18 wherein the indication comprises sending a replay signal to a video capture device.

20. (Original) The method as claimed in claim 18 wherein the indication comprises displaying a replay signal to instruct a user to replay the video.

21. (Currently Amended) The method as claimed in claim 13 wherein a video is comprised of [[a]] the sequence of frames and wherein ~~each frame of the sequence is comprised of a plurality of blocks of pixels, each block of pixels being represented by a matrix of coefficients comprised of the first and second portions,~~ the method further ~~comprising~~: comprises:

transforming the combined coefficient matrix for each block of pixels of each frame of the sequence to generate a bit stream representing the video; and

storing the bit stream.

22. (Currently Amended) A system for generating a bit stream representing a high quality video comprising:

a serial interface to receive first portions of coefficients of a plurality of coefficient matrices for frames of a sequence of frames, wherein each frame comprises a plurality of blocks of pixels and each block of pixels is represented by one of the coefficient matrices, the serial interface to further receive ~~and~~ second portions of coefficients of [[a]] the coefficient ~~matrix~~ matrices for the frames after receipt of the first portions;

a decompressing element to decompress the first portion of coefficients and to decompress the second portion of coefficients~~, the second portion being received subsequent to the first portion~~; and

a combining element to combine the first and second portions of coefficients for corresponding frames based on a reference frame to generate ~~a~~ combined coefficient ~~matrix~~ matrices corresponding with [[a]] the blocks of pixels.

23. (Currently Amended) A system for generating a bit stream representing a high quality video comprising:

a serial interface to receive first and second portions of coefficients of a coefficient matrix;

a decompressing element to decompress the first portion of coefficients and to decompress the second portion of coefficients, the second portion being received subsequent to the first portion;

a combining element to combine the first and second portions of coefficients to generate a combined coefficient matrix corresponding with a block of pixels; and

~~The system as claimed in claim 22 further comprising~~ a processing element to match an initial frame with a previously received frame and send a signal to the interface during a vertical blanking interval, the signal requesting a video capture device to compress and send the second portion of coefficients.

24. (Currently Amended) The system as claimed in claim 22 ~~wherein the~~ further comprising:

a processing element to generate ~~generates~~ the bit stream from the combined coefficient ~~matrix~~ matrices representing the frames of the sequence; [[,]] and

~~the system further comprising~~ a storage element for storing the bit stream.

25. (Currently Amended) A video capture device comprising:

a compressing element to transform [[a]] blocks of the pixels to [[a]] corresponding ~~matrix~~ matrices of coefficients and to compress [[a]] first portions of the coefficients for frames of a sequence of frames, wherein each frame of the sequence comprises a plurality of blocks of pixels and each block of pixels is represented by a block of the coefficients;

a serial interface to send the compressed first portions of coefficients over a serial link for each frame in the sequence; and

a controller to instruct the compressing element to compress [[a]] second portions of the coefficients and cause the compressed second portions of coefficients to be sent to the serial interface for each frame in the sequence after the compressed first portions are sent.

26. (Currently Amended) The device as claimed in claim 25 wherein the controller instructs the compressing element to compress the second portion of the coefficients ~~after the compressed first portion of coefficients have been sent over a serial link~~ in response to a switch mode signal from a reception device coupled with the serial interface.

27. (Currently Amended) The device as claimed in claim 25 wherein a video is comprised of [[a]] the sequence of frames ~~wherein each frame of the sequence is comprised of a plurality of blocks of pixels~~, and wherein the compressing element transforms each block of pixels into a matrix of coefficients corresponding with each block of pixels.

28. (Currently Amended) The device as claimed in claim 27 wherein each matrix of coefficients has a low frequency portion and a high frequency portion, wherein the compressing element compresses the low frequency portions of the coefficients for each matrix of coefficients

for the frames of the sequence, and the interface sends the compressed low frequency portions of coefficients for each block of pixels of the frames of the sequence prior to sending the compressed high-frequency portions of coefficients for each block of pixels of the frames of the sequence.

29. (Currently Amended) The device as claimed in claim 27 wherein the sequence of frames is a sequence of analog video frames, and

wherein the device further ~~comprising~~ comprises a decoder element to receive [[a]] the sequence of analog video frames and to convert the sequence of analog video frames to a sequence of digital video frames, wherein each pixel is represented by at least one byte.

30. (Original) The device as claimed in claim 25 wherein the serial interface is a universal serial bus (USB) interface providing a communication link with a reception device and having a data rate between 1 and 20 Mbps, and

wherein the compressor includes a hardware accelerator to perform a discrete cosine transform (DCT) on the blocks of pixels resulting in a matrix of DCT coefficients corresponding with each of the block of pixels.